

**Abstract**

The present invention claims an invertebrate animal that has been modified to express a set of genes, said set comprising the gene coding  
5 for a modified version of the gamma subunit of AMP-activated protein kinase (AMPK $\gamma$ ). According to the invention, the animal displays an identifiable phenotype related to lipid metabolism and neurodegeneration. This animal provides a model of neurodegenerative diseases, particularly Alzheimer's disease, and may be useful for  
10 screening and testing modulating agents, substances and therapeutic compounds for neurodegenerative disorders.